

# **UNION PUBLIC UTILITY DISTRICT**

## **WATER RATE COST OF SERVICE STUDY UWPA FEE**

**FINAL**

**AUGUST 18, 2016**

Weber, Ghio & Associates, Inc.  
P.O. Box 251  
San Andreas, CA 95249  
(209) 754-1824

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## **LIST OF ACRONYMS & ABBREVIATED TERMS**

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APH: Angels Powerhouse

AWWA: American Water Works Association

CCF: Hundred cubic feet (equivalent to 748 gallons)

CPUC: California Public Utility Commission

District: Union Public Utility District

DWR: Department of Water Resources

MG: Million gallons

MGD: Million gallons per day

MPH: Murphys Powerhouse

Proposition 218: California Constitution Article XIII C

ReMat: Renewable Energy Market Adjusting Tariff Program

UPUD: Union Public Utility District

WGA: Weber, Ghio & Associates, Inc.

# **WATER RATES**

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## **Section 1: Executive Summary**

The study incorporates American Water Works Association (AWWA) recommended methodologies tailored to meet the District's unique characteristics and develops water rates that proportionately allocate the cost of providing water service for each customer class. The objectives of the water rate study are to:

- Recover the District's annual revenue requirement and costs of providing water service.
- Comply with the legal requirements of Proposition 218 and other pertinent California law.

The study reviews the projected income and expenses of the UPUD raw water supply system: Utica Water and Power Authority, (UWPA), and their effect on current District rates; summarizes procedural requirements of Proposition 218, details the rate study process, and provides final study conclusions and rate recommendations. The District is currently in the third year of a five year monthly service fee rate plan that was adopted in 2014. The monthly service and usage fees associated with both the domestic and irrigation systems are not proposed to be modified by this rate study from what was adopted in 2014. Only the UWPA fee amount is proposed to be modified.

### **Current Rate Structure**

Union Public Utility District receives its raw water for both its domestic and irrigation systems from the UWPA. The District's existing water rates are based on a traditional rate structure which currently includes a fixed \$1/month UWPA fee paid by all domestic and irrigation customers for costs associated with obtaining raw water from the UWPA.

### **Procedural Requirements of Proposition 218**

Proposition 218, the "Right to Vote on Taxes Act," was approved by California voters in November 1996 and is codified as Articles XIII C and XIII D of the California Constitution. Proposition 218 establishes requirements for imposing any new or increasing any existing property-related fees and charges. For many years, there was no legal consensus on whether water service fees met the definition of "property-related fees." In July 2007, the California Supreme Court essentially confirmed that Proposition 218 applies to water service fees.

The District must follow the procedural requirements of Proposition 218 for all water rate increases. These requirements include:

1. **Noticing Requirement:** The District must mail a notice of the proposed rate increases to all affected property owners. The notice must specify the amount of the fee, the basis upon which it was calculated, the reason for the fee, and the date/time/location of a public rate hearing at which the proposed rates will be considered/adopted.
2. **Public Hearing:** The District must hold a public hearing prior to adopting the proposed rate increases. The public hearing must be held not less than 45 days after the required notices are mailed.
3. **Rate Increases Subject to Majority Protest:** At the public hearing, the proposed rate increases are subject to majority protest. If more than 50% of affected property owners submit written protests against the proposed rate increases, the increases cannot be adopted.

Proposition 218 also established a number of substantive requirements that apply to water rates and charges including:

1. **Cost of Service** - Revenues derived from the fee or charge cannot exceed the funds required to provide the service. In essence, fees cannot exceed the "cost of service."
2. **Intended Purpose** - Revenues derived from the fee or charge can only be used for the purpose for which the fee was imposed.
3. **Proportional Cost Recovery** - The amount of the fee or charge levied on any customer shall not exceed the proportional cost of service attributable to that customer.
4. **Availability of Service** - No fee or charge may be imposed for a service unless that service is used by, or immediately available to, the owner of the property.
5. **General Government Services** - No fee or charge may be imposed for general governmental services where the service is available to the public at large.

Charges for water, sewer, and refuse collection are exempt from additional voting requirements of Proposition 218, provided the charges do not exceed the cost of providing service and are adopted pursuant to procedural requirements of Proposition 218.

## Rate Study Process

This section details the development of the District's UWPA fee and compliance with Proposition 218 through a comprehensive cost of service and rate design study process.

The following is a brief description of the water financial plan and rate design process:

**Financial Plan Projections/Revenue Requirements:** Revenue requirements are analyzed based upon income and expense projections based upon designated water year provided by the UWPA. The income and expenses of the UWPA vary on a yearly basis dependent upon the water allocation determined by the Department of Water Resources, which is based upon the current year snowpack, and upon its current contract for power generation sales. Based on the best information currently available, the financial plan incorporates projected income and expenses of the UWPA, as well as UPUD's current contractual payment amounts (\$40,000/year) for raw water, as the basis of UPUD's monthly UWPA fee. The monthly service and usage fees associated with both the domestic and irrigation systems are not proposed to be modified by this rate study, only the UWPA fee. The financial plan projections determine the annual water revenue requirements to be recovered through the UWPA fee.

**Cost of Service:** The cost of service process builds on the financial plan analysis and assigns water system costs to functional cost components which are then allocated to the various customer classes. This process is intended to proportionately allocate costs associated with each customer class.

**Rate Design:** Rate design involves developing a rate structure that proportionately recovers costs from water system customers. No modifications to the District's existing rate structure are proposed with this study, only the amount associated with the UWPA fee. Final rate recommendations are designed to (a) fund the utility's short- and long-term costs of providing service; (b) proportionately allocate costs to all customers and customer classes; (c) provide a prudent balance of revenue stability; and (d) comply with the substantive requirements of Proposition 218.

## **Findings and Recommendations**

The financial projections and rate recommendations include modifications to the monthly UWPA fee only. The final rates are designed to recover the water utility's cost of service and proportionately recover costs from all customer classes. Rate increases are implemented in a five-year period. The first rate adjustments will take effect on Dec. 1, 2016. Rate increases thereafter will be effective on July 1, beginning on July 1, 2017 through July 1, 2020 and be subject to a vote of the UPUD Board of Directors based upon water year and power contract information provided by the UWPA.

### **Cost of Service Analysis**

The cost of service analysis for the traditional rate structure is based on AWWA's "Commodity Demand" methodology as outlined in the AWWA Manual M1.

For both the domestic and irrigation customers, the proposed rate structure maintains the District's current monthly service fee structure and rates per the 2014 UPUD Water Rate Study and proposes modifications to the UWPA fee only.

### **Final Rate Recommendation**

After considering the District's need to fund the water system, the Board of Directors voted to notice five years of rate increases. The final proposed UWPA fee amounts which were included in the Proposition 218 notice are shown on Table 1.

The process for establishing the fee on a yearly basis by the UPUD Board of Directors will depend on the water year that is established for the UWPA as well as whether the UWPA is successful in obtaining a ReMat contract for the Murphys Powerhouse. Table 1 presents the proposed UWPA fee by water year and by current or Renewable Energy Market Adjusting Tariff Program (ReMat) contract. Once the water year is established (yearly basis) and the power contract for the year determined, the UPUD Board may adopt the corresponding UWPA fee for the succeeding fiscal year.

**Table 1: Final Proposed UWPA fee**

| Water Year | PROPOSED UPUD UWPA FEE <sup>(2)</sup> |                                  |                                           |                                  |                                           |                                  |                                           |                                  |                                           |
|------------|---------------------------------------|----------------------------------|-------------------------------------------|----------------------------------|-------------------------------------------|----------------------------------|-------------------------------------------|----------------------------------|-------------------------------------------|
|            | 2016/2017 <sup>(1)</sup>              | 2017/2018                        |                                           | 2018/2019                        |                                           | 2019/2020                        |                                           | 2020/2021                        |                                           |
|            | Current<br>MPH+APH<br>\$35/MW hr      | Current<br>MPH+APH<br>\$35/MW hr | ReMat<br>APH \$35/MW hr<br>MPH \$90/MW hr | Current<br>MPH+APH<br>\$35/MW hr | ReMat<br>APH \$35/MW hr<br>MPH \$90/MW hr | Current<br>MPH+APH<br>\$35/MW hr | ReMat<br>APH \$35/MW hr<br>MPH \$90/MW hr | Current<br>MPH+APH<br>\$35/MW hr | ReMat<br>APH \$35/MW hr<br>MPH \$90/MW hr |
|            |                                       |                                  |                                           |                                  |                                           |                                  |                                           |                                  |                                           |
| I          | \$17.46                               | \$19.98                          | \$1.70                                    | \$21.84                          | \$1.70                                    | \$23.80                          | \$3.48                                    | \$25.85                          | \$5.53                                    |
| II         |                                       | \$22.03                          | \$4.03                                    | \$23.89                          | \$5.89                                    | \$25.84                          | \$7.85                                    | \$27.89                          | \$9.90                                    |
| III        |                                       | \$24.05                          | \$8.34                                    | \$25.91                          | \$10.20                                   | \$27.87                          | \$12.15                                   | \$29.92                          | \$14.20                                   |
| IV         |                                       | \$26.91                          | \$14.23                                   | \$28.77                          | \$16.09                                   | \$30.72                          | \$18.04                                   | \$32.77                          | \$20.09                                   |
| V          |                                       | \$28.81                          | \$18.26                                   | \$30.67                          | \$20.12                                   | \$32.62                          | \$22.07                                   | \$34.67                          | \$24.13                                   |
| VI         |                                       | \$30.38                          | \$22.24                                   | \$32.24                          | \$24.10                                   | \$34.19                          | \$26.05                                   | \$36.24                          | \$28.10                                   |

<sup>(1)</sup> Assumes increase in UWPA fee effective by Dec. 1, 2016

<sup>(2)</sup> Includes contractual payment of \$40,000/year from UPUD to UWPA in addition to UWPA projected deficit.

## SECTION 2: Water Enterprise Overview

### UPUD Current Water Supply

UPUD currently relies on surface water from the Utica Water and Power Authority for all of its water supply.

### Current Water Rates

The District bills water service on a monthly basis. The current domestic and irrigation water rates are based on a traditional rate structure and include three components:

1. A **fixed base charge (base rate)** that varies based on meter size, customer type and location, and is levied regardless of water consumption. This basic service charge recognizes the fact that even when a customer does not use any water, the District incurs fixed costs in connection with the ability or readiness to serve each connection.
2. A **metered variable charge (usage charge)** billed per each hundred or thousand cubic feet of metered water use (over 1,000 cf for domestic customers and over 50,000 cf for irrigation customers). The quantity charge is intended to recover costs that vary based on the amount of water consumed as well as some of the District's fixed operating costs. These variable costs can include utilities, chemicals, etc.
3. A fixed **UWPA fee** paid by all domestic and irrigation customers for costs associated with obtaining raw water from the UWPA.

The current water rates are shown in Table 2:

**Table 2: Current Monthly Water Rates**

**Domestic Water:**  
(up to 1,000 cubic feet)

|                 |          |
|-----------------|----------|
| 5/8"X 3/4"meter | \$ 43.00 |
| 1"meter         | \$ 60.00 |
| 1½"meter        | \$ 85.00 |
| 2"meter         | \$115.00 |
| 3"meter         | \$170.00 |
| 4"meter         | \$225.00 |
| 6"meter         | \$309.00 |

Additional Usage (over 1000 cubic feet): \$1.70 per 100 cubic feet

**Irrigation Water:**

(up to 50,000 cubic feet)

Irrigation Season        \$35.00  
May - October

Non-Irrigation Season   \$49.00  
November - April

Additional Usage (over 50,000 cubic feet): .45 per 1,000 cubic feet

**UWPA Fee:**   \$1.00/month all domestic and irrigation customers

## **Existing Customers**

The District has 1,965 existing domestic and irrigation customers that currently pay the monthly UWPA fee.

## **SECTION 3: FINANCIAL PLAN/ REVENUE REQUIREMENTS**

This section details the revenue and expenditure assumptions used to estimate and project the water utility's annual revenue requirements to facilitate payment of UWPA charges for raw water.

### **Water Fund Reserves**

As of July 30, 2016, the District's UWPA Reserve Fund contained \$21,945. Based upon income/expense information received from the UWPA, this amount is significantly below what will be required to fund the cost of raw water. Maintaining a prudent minimal level of fund reserves provides a financial cushion for dealing with unanticipated expenses, revenue shortfalls, debt requirements, and emergency capital repairs.

### **Projected Future Growth**

The District anticipates a minimal level of future growth over the five-year planning period.

### **Baseline Operating Expenses**

Operating costs are expenditures that the District incurs in the daily operations of the water system. Baseline operating expenses are the water system's basic operating and capital costs that are incurred. These include employee salaries and wages, well operations, general office, building maintenance, District vehicles, equipment, professional services, lab analysis, utilities, mechanical, cost of raw water and other miscellaneous expenses. A portion of these expenses are related to payment to the UWPA for raw water.

Table 3 presents the projected budget expenses of the UWPA for 2016/2017 and 2017/2018. The 2016/2017 budget includes funds for an interconnection upgrade at the Murphys Powerhouse to facilitate a ReMat contract but does not include funds for the future FERC relicensing fund. The 2017/2018 budget includes \$195,000 for the FERC relicensing fund and no expenditure proposed for the interconnection upgrade.

**Table 3: UWPA 2016/2017 and 2017/2018 Budget Expenses**

**UTICA WATER AND POWER AUTHORITY  
2016/2017 BUDGET**

| <b>ITEM</b>                         | <b>AMOUNT</b>      |
|-------------------------------------|--------------------|
| FERC COMPLIANCE                     | \$38,700           |
| DAMSAFETY                           | \$23,500           |
| OPERATIONS & MAINTENANCE            | \$568,259          |
| ADMINISTRATION                      | \$237,591          |
| TRAVEL/TRAINING                     | \$5,000            |
| MATERIAL/MICS.                      | \$20,000           |
| INSURANCE                           | \$39,000           |
| LEGAL                               | \$22,000           |
| ACCOUNTING                          | \$18,500           |
| FEES                                | \$77,375           |
| COMMUNICATIONS                      | \$27,000           |
| UTILITIES                           | \$33,000           |
| POWERHOUSES - MAINT. & REPAIR       | \$16,000           |
| POWERHOUSES - CAPITAL PROJECTS      | \$281,000          |
| WATER CONVEYANCE - MAINT. & REPAIR  | \$29,500           |
| WATER CONVEYANCE - CAPITAL PROJECTS | \$102,000          |
| HYDROGRAPHY                         | \$23,000           |
| SCADA/IT                            | \$22,900           |
| CONSULTANTS                         | \$5,000            |
| VEHICLES                            | \$43,000           |
| CONTINENCIES                        | \$60,000           |
| <b>TOTAL:</b>                       | <b>\$1,692,325</b> |

**NOTES:**

1. DOES NOT INCLUDE ANNUAL FERC LICENSE DEPOSIT OF \$195,000/YR
2. POWERHOUSES - CAPITAL PROJECTS INCLUDES ONE-TIME COST OF AN INTERCONNECTION UPGRADE AT MURPHYS POWERHOUSE TO SUPPORT ReMAT.

**UTICA WATER AND POWER AUTHORITY  
2017/2018 BUDGET**

| <b>ITEM</b>            | <b>AMOUNT</b>      |
|------------------------|--------------------|
| O&M/CIP                | \$261,000          |
| OPERATORS              | \$448,500          |
| OVERTIME/ON-CALL       | \$45,000           |
| HYDROGRAPHY/USGS       | \$30,000           |
| PART 12 DAM COMPLIANCE | \$20,000           |
| VEHICLES BUDGET        | \$35,000           |
| FERC COMPLIANCE        | \$55,000           |
| FERC ADMIN FEE         | \$15,000           |
| TRAINING/TRAVEL        | \$5,000            |
| MISC. SUPPLIES         | \$35,000           |
| ADMIN STAFF            | \$235,000          |
| LEGAL/INSURANCE        | \$80,000           |
| ACCOUNTING             | \$15,000           |
| REGULATORY FEES        | \$85,000           |
| COMMS AND UTILITIES    | \$55,000           |
| CONTINGENCIES          | \$140,000          |
| FERC LICENSE FUND      | \$195,000          |
| <b>TOTAL:</b>          | <b>\$1,754,500</b> |

Based upon discussions with the UWPA it is anticipated the 2017/2018 budget expenses will continue during the time period of this rate study subject to anticipated increases due to inflation. Table 4 presents the baseline projected expenses of the UWPA per year for the time period 2016-2020. In general, all baseline expenses for future years past 2017/2018 are escalated by 5 percent per year to account for inflation.

**Table 4: UWPA Baseline Operating Expenses**

**UTICA WATER AND POWER AUTHORITY  
BASELINE OPERATING EXPENSES**

|                                | <u>2016/2017</u> | <u>2017/2018</u> | <u>2018/2019</u> | <u>2019/2020</u> | <u>2020/2021</u> |
|--------------------------------|------------------|------------------|------------------|------------------|------------------|
| <b>TOTAL OPERATING EXPENSE</b> | \$1,692,325      | \$1,754,500      | \$1,842,225      | \$1,934,336      | \$2,031,053      |

**Baseline Operating Income**

The UWPA receives income primarily from the generation of hydroelectric power at both its Murphys and Angels Camp Powerhouses. In addition to revenue from power generation, the UWPA receives approximately \$80,000/year in other income from irrigation, leases, etc.

The level of income derived from generation of power is dependent upon the amount of water allocated to the UWPA system by the State of California on a yearly basis and is dependent upon the amount of snow pack in the Stanislaus River Watershed. The UWPA water allocations (and resulting income) are based on Water Years 1 thru 6 with 6 being the most restrictive in terms of water availability.

In addition to the water allocations, which are based on the specified Water Year, the UWPA's income will vary based on its contracts for power sales. The UWPA currently receives a total of \$35/MW hr at each of its two powerhouses. (\$24/MW hr + \$11/MW hr for weighted renewable energy certificates). The UWPA is currently in the approval process for the Renewable Energy Market Adjusting Tariff Program (ReMAT) which if successful will result in the District receiving a total of \$90/MW hr for power generated at the Murphys Powerhouse.

Since the UWPA income may vary considerably based upon approval of the ReMat program, this study presents an analysis of two scenarios: 1. Current price of \$35/MW hr and 2. ReMAT price of \$90/MW hr at the Murphys Powerhouse combined with current price of \$35/MW hr at the Angels Powerhouse.

Table 5 presents a summary of the projected income from both scenarios.

**Table 5: Baseline Operating Income**

**UTICA WATER AND POWER AUTHORITY  
PROJECTED INCOME BY WATER YEAR AND POWER CONTRACT**

|                       |               |               |                        |                  |                   |                  | PROJECTED INCOME                       |                                                 |
|-----------------------|---------------|---------------|------------------------|------------------|-------------------|------------------|----------------------------------------|-------------------------------------------------|
|                       | MPH<br>MW hrs | APH<br>MW hrs | combined<br>generation | weighted<br>RECs | scheduled<br>\$24 | weighted<br>RECs | SCENARIO 1<br>MPH + APH<br>\$24 + RECs | SCENARIO 2<br>MPH ReMAT \$90<br>APH \$24 + RECs |
| <b>Water Year I</b>   | 16,890        | + 6,393       | = 23,283               | \$11             | \$558,792         | + \$253,319      | \$812,111                              | \$1,770,069                                     |
| <b>Water Year II</b>  | 14,977        | + 5,376       | = 20,353               | \$11             | \$488,472         | + \$227,139      | \$715,611                              | \$1,564,338                                     |
| <b>Water Year III</b> | 13,089        | + 4,371       | = 17,460               | \$12             | \$419,040         | + \$201,139      | \$620,179                              | \$1,361,253                                     |
| <b>Water Year IV</b>  | 10,580        | + 2,799       | = 13,379               | \$12             | \$321,096         | + \$164,428      | \$485,524                              | \$1,083,567                                     |
| <b>Water Year V</b>   | 8,811         | + 1,858       | = 10,669               | \$13             | \$256,056         | + \$139,977      | \$396,033                              | \$893,304                                       |
| <b>Water Year VI</b>  | 6,822         | + 1,600       | = 8,422                | \$14             | \$202,128         | + \$119,761      | \$321,889                              | \$705,780                                       |

Note:

MPH: Murphys Powerhouse

APH: Angels Powerhouse

In addition to the Power Revenue shown above, UWPA's other sources of income (irrigation, leases, etc.) averages \$80,000 annually.

## SECTION 4: COST OF SERVICE

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The financial plan and cash flow projections detailed in the previous section determined the amount of revenue needed to facilitate payment to the UWPA for raw water. The cost of service analysis builds on the revenue requirements by providing a basis for recovering revenues from customers based on the unique demands they place on the water system. Proposition 218 requires that agencies providing “property-related services” (including water utility service) set rates and charges that are based on the cost of providing those services.

The rates proposed in this report were developed using generally accepted cost-based principles and methodologies for establishing water rates, charges, and fees contained and discussed in the AWWA’s *M1 Manual, Principles of Water Rates, Fees, and Charges, Sixth Edition, 2012*. In developing water rates, it is important to know that there is no “one-size-fits-all” approach for establishing cost-based water rates. Rather, as the first edition of the M1 Manual noted “the (M1 Manual) is aimed at outlining the basic elements involved in water rates and suggesting alternative rules of procedure for formulating rates, thus permitting the exercise of judgment and preference to meet local conditions and requirements.”<sup>1</sup>

### Fixed vs. Variable Charges

Water utilities can recover costs from a combination of fixed and variable charges. The percentage of revenues derived from the fixed and variable charges varies for each agency and should be proportional to each system’s expenditures and must not exceed the cost of providing service. A higher level of fixed charges provides better revenue stability and less dependence on volumetric sales.

Fixed costs, from an accounting standpoint, are the expenses required to provide basic service and do not vary with the production or consumption of water. Examples include debt service, labor, system maintenance, and repairs. These fixed costs are essential for providing water service to all customers at any given time. In contrast, variable costs fluctuate based on the amount of water produced. Examples include utilities, chemicals, etc. Typically, the majority of a water system’s costs are fixed, and therefore fixed rates are assumed to generate sufficient revenue to meet the utility’s fixed expenses. The UWPA fee is currently a fixed fee paid monthly by all domestic and irrigation customers. No change is recommended to the use of a fixed fee herein.

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<sup>1</sup> AWWA Manual M1 Manual, Principles of Water Rates, Fees, and Charges, Sixth Edition, 2012, page 5.

## SECTION 5: RATE DESIGN & RATE STRUCTURE ALTERNATIVES

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The final step of the water rate study process is the design of water rates to generate the level of revenues needed to meet annual revenue requirements. The evaluation of rate structure alternatives takes into account both the level of rate increases and the structure of the rates. The level of increases refers to the amount of revenue to be collected from a specific rate design. The rate structure refers to the way in which the revenues are collected from the customers.

### Rate Development Principles

The following criteria were used in developing the proposed rates:

1. *Revenue Sufficiency:* Rates should recover the annual cost of service and provide revenue stability.
2. *Proportionality:* Rates should be proportionately allocated among all customer classes based on their estimated demand characteristics, i.e. each user class only pays its proportionate share.
3. *Practical:* Rates should be simple in form and, therefore, adaptable to changing conditions, easy to administer, and easy to understand.

### Proposed Water Rates and Calculations:

Table 6 shows the proposed UWPA fee and supporting calculations. The rates recover the proportionate costs of providing water service to each customer class and would be charged to all domestic and irrigation customers on an equal basis.

**Table 6: Proposed Monthly UWPA Fee Calculation**

| PROJECTED UWPA INCOME/EXPENSE DEFICITS |                            |                            |                                     |                            |                                     |                            |                                     |                            |                                     |
|----------------------------------------|----------------------------|----------------------------|-------------------------------------|----------------------------|-------------------------------------|----------------------------|-------------------------------------|----------------------------|-------------------------------------|
| Water Year                             | 2016/2017 <sup>(1)</sup>   | 2017/2018                  |                                     | 2018/2019                  |                                     | 2019/2020                  |                                     | 2020/2021                  |                                     |
|                                        | Current MPH+APH \$35/MW hr | Current MPH+APH \$35/MW hr | ReMat APH \$35/MW hr MPH \$90/MW hr | Current MPH+APH \$35/MW hr | ReMat APH \$35/MW hr MPH \$90/MW hr | Current MPH+APH \$35/MW hr | ReMat APH \$35/MW hr MPH \$90/MW hr | Current MPH+APH \$35/MW hr | ReMat APH \$35/MW hr MPH \$90/MW hr |
| I                                      | -\$460,000                 | -\$862,389                 | \$0                                 | -\$950,114                 | \$0                                 | -\$1,042,225               | -\$84,267                           | -\$1,138,942               | -\$180,984                          |
| II                                     |                            | -\$958,889                 | -\$110,162                          | -\$1,046,614               | -\$197,887                          | -\$1,138,725               | -\$289,998                          | -\$1,235,442               | -\$386,715                          |
| III                                    |                            | -\$1,054,321               | -\$313,247                          | -\$1,142,046               | -\$400,972                          | -\$1,234,157               | -\$493,083                          | -\$1,330,874               | -\$589,800                          |
| IV                                     |                            | -\$1,188,976               | -\$590,933                          | -\$1,276,701               | -\$678,658                          | -\$1,368,812               | -\$770,769                          | -\$1,465,529               | -\$867,486                          |
| V                                      |                            | -\$1,278,467               | -\$781,196                          | -\$1,366,192               | -\$868,921                          | -\$1,458,303               | -\$961,032                          | -\$1,555,020               | -\$1,057,749                        |
| VI                                     |                            | -\$1,352,611               | -\$968,720                          | -\$1,440,336               | -\$1,056,445                        | -\$1,532,447               | -\$1,148,556                        | -\$1,629,164               | -\$1,245,273                        |

| PROPOSED UPUD UWPA FEE <sup>(3)</sup> |                            |                            |                                     |                            |                                     |                            |                                     |                            |                                     |
|---------------------------------------|----------------------------|----------------------------|-------------------------------------|----------------------------|-------------------------------------|----------------------------|-------------------------------------|----------------------------|-------------------------------------|
| Water Year                            | 2016/2017 <sup>(2)</sup>   | 2017/2018                  |                                     | 2018/2019                  |                                     | 2019/2020                  |                                     | 2020/2021                  |                                     |
|                                       | Current MPH+APH \$35/MW hr | Current MPH+APH \$35/MW hr | ReMat APH \$35/MW hr MPH \$90/MW hr | Current MPH+APH \$35/MW hr | ReMat APH \$35/MW hr MPH \$90/MW hr | Current MPH+APH \$35/MW hr | ReMat APH \$35/MW hr MPH \$90/MW hr | Current MPH+APH \$35/MW hr | ReMat APH \$35/MW hr MPH \$90/MW hr |
| I                                     | \$17.46                    | \$19.98                    | \$1.70                              | \$21.84                    | \$1.70                              | \$23.80                    | \$3.48                              | \$25.85                    | \$5.53                              |
| II                                    |                            | \$22.03                    | \$4.03                              | \$23.89                    | \$5.89                              | \$25.84                    | \$7.85                              | \$27.89                    | \$9.90                              |
| III                                   |                            | \$24.05                    | \$8.34                              | \$25.91                    | \$10.20                             | \$27.87                    | \$12.15                             | \$29.92                    | \$14.20                             |
| IV                                    |                            | \$26.91                    | \$14.23                             | \$28.77                    | \$16.09                             | \$30.72                    | \$18.04                             | \$32.77                    | \$20.09                             |
| V                                     |                            | \$28.81                    | \$18.26                             | \$30.67                    | \$20.12                             | \$32.62                    | \$22.07                             | \$34.67                    | \$24.13                             |
| VI                                    |                            | \$30.38                    | \$22.24                             | \$32.24                    | \$24.10                             | \$34.19                    | \$26.05                             | \$36.24                    | \$28.10                             |

<sup>(1)</sup> Based upon information from UWPA, member contributions for 2016/2017 will total \$460,000 ( \$230,000 each from UPUD and the City of Angels)

<sup>(2)</sup> Assumes increase in UWPA fee effective by Dec. 1, 2016

<sup>(3)</sup> Includes contractual payment of \$40,000/year from UPUD to UWPA in addition to UWPA projected deficit.